

# PORTABLE AIR FILTRATION SYSTEM

## ABSTRACT OF THE DISCLOSURE

5           A portable air filtration system includes a filter housing having an air inlet and an  
air outlet. The filter housing defines a filtration chamber between the air inlet and the air  
outlet. The portable air filtration system uses an ionizing mechanism, a filter media, and  
an electrode to filter air. The ionizing mechanism ionizes particles within the air to a  
negative charge. The filter media is disposed between the ionizing mechanism and the  
10   air outlet for entrapping the particles. The electrode is disposed between the ionizing  
mechanism and the filter media to establish an electric field. The electric field is  
established between the ionizing mechanism and the electrode adjacent to the filter  
media. The electrode is also electrically-connected to ground and to the filter media for  
dissipating the negative charge of the particles entrapped within the filter media.

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